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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/021,765	12/12/2001	Peter S. Whitney	1109us	2239

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EXAMINER	
LIN, TINA M	

ART UNIT	PAPER NUMBER
2874	

DATE MAILED: 10/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/021,765	WHITNEY ET AL.	
	Examiner	Art Unit	
	Tina M Lin	2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on ~~01~~ 18 August 2003 .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-11 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-11 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 04 February 2002 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-5 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication US2002/0064352 A1 to Andersen et al. In regards to claims1-5, Anderson et al. discloses a package or housing that includes exemplary optical components (54 and 56) and a getter (70), which withdraws moisture from a region. However, Andersen et al. fails to specifically disclose the optical component in the package to be a filter having two thin film mirrors that define an optical resonant cavity. However, from figure 4 in Andersen et al., it can be observed that the exemplary optical component in the shape of a pipette / parallelogram, a well-known and common shape for a resonant cavity. Furthermore, the exemplary optical component may also be either a filter or a set of thin film mirrors. Therefore, since Andersen et al. only discloses numbers 54 and 56 in figure 4 to be optical components, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have chosen an optical filter with thin film mirrors to define an optical resonant cavity as either number 54 or 56 in figure 4. Andersen et al. also fails to specifically mention a hermetic package and the filter to be disposed on a release structure. However, the use of a hermetic package is well known and obvious to one skilled in the art. If a getter were to be included in the overall system to extract moisture from a region, for obvious reasons, a hermetic package would

be used to prevent moisture from entering the region. Additionally, Andersen et al. only mentions a package or housing but does not specify a specific type of housing. However, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have used a release structure, or any other structure, which would allow for the most optimal results and the greatest ease for working with the system. In regards to claims 8-11, Andersen et al. discloses an optical component in a package, a getter on the lid in the package to absorb moisture, and a lid to close the package. But Andersen et al. fails to specifically mention an optical filter with two thin film mirrors that define an optical resonant cavity, sealing the package with the getter, removing the moisture prior to sealing the lid and applying the getter to the lid prior to sealing the lid. However, from figure 4 in Andersen et al., it can be observed that the exemplary optical component in the shape of a pipette / parallelogram, a well-known and common shape for a resonant cavity. Furthermore, the exemplary optical component may also be either a filter or a set of thin film mirrors. Therefore, since Andersen et al. only discloses numbers 54 and 56 in figure 4 to be optical components, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have chosen an optical filter with thin film mirrors to define an optical resonant cavity as either number 54 or 56 in figure 4. Also, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have removed any moisture from the package prior to sealing the package since the goal of the getter component is to absorb the additional moisture that the package may incur. Additionally, since it would likely be easier to place the getter on the lid before it was sealed, it would have also been obvious at the time the invention was made to a

person having ordinary skill in the art to have placed the getter on the lid prior to sealing and thereby also sealing the package with the getter.

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication US2002/0064352 A1 to Andersen et al as applied to claim 1 above, and further in view of U.S. Patent 6,373,620 B1 to Wang. Andersen et al. discloses all of the above, but fails to specifically mention a thin film mirror, which comprises alternating layers of tantalum pentoxide and silicon dioxide. However, these materials are commonly used and well known materials for thin film mirrors. Wang discloses a mirror with alternating layers of tantalum pentoxide and silicon dioxide. (Column 9) Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have a thin film mirror with alternating layers of tantalum pentoxide and silicon dioxide.

Applicant's arguments filed 18 August 2003 have been fully considered but they are not persuasive. Applicants argue the getter in the application prevents spectral drifts, which in turn affects the frequency accuracy. The drifts and frequency shifts occurred due to moisture affecting the material stress of the thin film mirrors. Therefore, the inclusion of a getter would absorb the moisture and result in stabilizing the optical filter. However, Anderson et al. also discloses an optical component package with a getter. According to Anderson et al. the getter (70) withdraws moisture from the resonant cavity (24) as well. Therefore, since the getter in the optical filter disclosed by Applicant and the getter in the optical component package both withdraw moisture from a resonant cavity with thin film mirrors, the end result of a more stable optical component would be same.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tina M Lin whose telephone number is (703) 305-1959. The examiner can normally be reached on Monday-Friday 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (703) 308-4819. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

TML

John D. Lee
Primary Examiner